

For each question, you need to find the answer and show your work. Each problem is worth 3 points: one for the correct answer and two for showing your work. For some problems, you may just need to write out how you know you have the correct answer.

1. An elevator can carry a maximum of 2800 lb. If this is based on an average adult weight of 150 lb, write an inequality to determine how many adults can be on the elevator at one time.

2. A cake recipe uses at least twice the amount of flour as sugar. If $2\frac{1}{2}$ cups of flour are used, write an inequality that's shows how much sugar can be in the cake.

3. A cheese pizza costs \$11.75. Each additional topping costs \$1.25. What is the greatest number of toppings to add to your pizza if you spend no more than \$16.00? (Assume no half toppings are allowed, and no tax.)

4. A wireless phone company charges a \$6.50 fee per month, and all calls are then \$0.07 per minute. What is the greatest number of minutes you can talk per month if you must keep your long distance bill below \$25.00? (Assume no partial minutes or tax.)

5. The principal of a high school tell her students that they can go on a trip if $\frac{3}{5}$ of the students want to go. If there are 458 students in the school, what is the minimum number of students that must go in order for the trip to be allowed?

6. Matt Mitarnowski is buying supplies for school. The notebook he needs cost \$8.25. Folders cost \$0.10 each. What is the greatest number of folders he can buy without spending more than \$10.00 and also buying one notebook?

7. Fuzzy Jeff's goal for the basketball season is to average at least 12 points per game. He has 184 points after 17 games in a 20-game season. Write an inequality to represent the number of points Jeff needs over the last three games of the season to reach his average.

8. Maggie Brann swims at least 18 laps at practice each day, five days per week. Write an inequality to show how many laps she swims at practice each week.

Open-Ended Question: You may write your answer on this paper. Make sure as you answer the open-ended question that you show your work AND explain how you know you are doing the correct work. YOU MUST EXPLAIN WHAT YOU ARE DOING!!!

A car rental company charges \$39.99 per day to rent a car. The first 50 miles are free, but there is a charge of \$0.28 per mile after 50 miles.

A. Write an inequality to determine the greatest number of miles that you can drive for \$85.00 or less.

B. Solve the inequality and show the solution on a number line.